

REMARKS/ARGUMENTS

1. The Applicant has carefully considered the official communication dated October 4, 2007. Applicant respectfully submits that the amendments and the following remarks are fully responsive to the official communication.
2. We have made the appropriate claim amendments in order to address the double patenting issue raised in paragraphs 2 and 3 of the Official Action. In particular, the claims, as amended, include the feature of a “feed mechanism including a media roll for carrying print media to be provided to the printing zone and a take up spool configured to receive printed print media from the printing zone”. These features were not previously claimed in US 6,679,584.
3. In paragraph 4, the Examiner has initially rejected claims 1-10 and 16 as being unpatentable over Matsumoto (U.S. 6,467,870). The Examiner states that it would have been obvious in light of Matsumoto to provide “a larger number of nozzle arrangements, such that at least twenty billion drops per second may be ejected”.
4. Matsumoto discloses chips in which static heat resistors, formed on a substrate, are heated to actively discharge ink from the nozzles 34 (see lines 25-34 of col. 7). The nozzle assemblies are relatively large owing to the size of the heater which must be used to effectively discharge ink. In practice, the size of the heater restricts the overall size of the printhead. Simply increasing the number of nozzles of Matsumoto to provide for the ejection of at least one billion drops of ink per second would result in a printhead of impractical proportions and would not be technically feasible. We respectfully submit that a person skilled in the art would immediately appreciate that chips using static heat resistors for ink ejection are incapable of being fabricated with a nozzle density required to print at least one billion drops per second.
5. In contrast and as explained in the present specification, the printhead is fabricated to include relatively compact Micro Electrical Mechanical Systems (MEMS) with moving parts. The use of MEMS technology enables the feasible fabrication of a printhead both capable of ejecting ink at a rate of at least one billion drops of ink per second and having practical size proportions. Accordingly, we submit that claim 1 is not obvious in light of Matsumoto.
6. We submit that claims 5 to 9 are also not obvious in light of Matsumoto, as a working printhead of reasonable size having the properties of these claims simply cannot be fabricated using the techniques disclosed in Matsumoto.
7. As discussed above, Matsumoto does not disclose using MEMS technology and therefore we submit that claim 12 is not obvious.
8. Neither citation discloses the features of a flexible PCB as claimed in claim 14, nor overlapping printhead chips to facilitate continuous printing along the chips as claimed in claim 15. Accordingly, we submit that these claims are also not obvious.
9. Furthermore, neither citation discloses the newly claimed feature of “feed mechanism including a media roll for carrying print media to be provided to the

printing zone and a take up spool configured to receive printed print media from the printing zone". Accordingly, we submit that the claims are further not obvious.

10. We propose adding dependant claims 17 to 20 and submit that the features defined in these claims are also not obvious in view of the citations.

It is respectfully submitted that all of the Examiner's objections have been successfully traversed. Accordingly, it is submitted that the application is now in condition for allowance. Reconsideration and allowance of the application are courteously solicited.

Very respectfully,

Applicant/s:



Kia Silverbrook

C/o: Silverbrook Research Pty Ltd
393 Darling Street
Balmain NSW 2041, Australia

Email: kia.silverbrook@silverbrookresearch.com

Telephone: +612 9818 6633

Facsimile: +61 2 9555 7762